Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12 (canceled).

13. (new) A polymer mixture containing at least one synthetic first polymer P(i) and at least one second polymer P(j) and optionally a swelling agent for P(i) and/or P(j), wherein the polymer P(i) has a degree of polymerisation DP(P(i)) > 500 and at least one type of crystallisable sequences A having a degree of polymerisation DPs(P(i)) of these sequences > 20 and the polymer P(j) is made up of the same monomer units as the sequences A of P(i) and the degree of polymerisation DP(P(j)) of P(j) is 20 < DP(P(j)) < 500 and the polymer mixture comprising a molecularly dispersed mixture containing P(i) and P(j) forms a network under heterocrystallisation.

14. (new) The polymer mixture according to claim 13, wherein under comparable processing conditions of P(i) and of P(i) + P(j)

    a) the quotient of the modulus of elasticity E(i, j) of P(i) + P(j) and the modulus of elasticity E(i) of P(i), E(i, j)/E(i) is >1.1 and <4; and/or

    b) the quotient of the yield stress sy(i, j) of P(i) + P(j) and the yield stress sy(i) of P(j), sy(i, j)/sy(i) is >1.1 and <3.0; and optionally;

    c) if there is a fraction A(j) of P(j) relative to P(i) +

P(i) in wt.% within the range 1 < A(j) < 15, the quotient of the breaking elongation eb(i, j) of P(i) + P(j) and the breaking elongation eb(i) of P(i), eb(i, j)/eb(i) is >1.01 and <1.5.

15. (new) The polymer mixtures of claim 14, wherein E(i,j) is >1.3, sy(i, j) is > 1.2 and eb (i,j) is > 1.03.

16. (new) The polymer mixtures of claim 14, wherein E(i,j) is >1.5, sy(i, j) is > 1.3 and eb (i,j) is > 1.05.

17. (new) The polymer mixtures of claim 14, wherein E(i,j) is >2.0, sy(i, j) is > 1.5 and eb (i,j) is > 1.10.

18. (new) The polymer mixture according to claim 13, wherein a quotient of the MFI(i, j) of the mixture of P(i) + P(j) and the MFI(i) of P(i), MFI(i, j)/MFI(i) is >1.2 and <500.

19. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >1.5.

20. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >2.0.

21. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >3.0.

22. (new) The polymer mixture according to claim 13, wherein under comparable processing conditions of P(i) and of P(i) + P(j), the quotient of the crystallinity K(i, j) of P(i) + P(j) and the crystallinity K(i) of P(i), K(i, j)/K(i) is >1.03 and <3.

23. (new) The polymer mixture according to claim 22, wherein the quotient of K(i, j) and K(i) is >1.05.

24. (new) The polymer mixture according to claim 22, wherein the quotient of K(i, j) and K(i) is >1.1.

25. (new) The polymer mixture according to claim 22, wherein the quotient of K(i, j) and K(i) is >1.2.

26. (new) The polymer mixture according to claim 13, wherein the fraction A(j) of P(j) relative to P(i) + P(i) in wt.% is in the range $1 < A(j) < 90$.

27. (new) The polymer mixture according to claim 13, wherein the fraction A(j) of P(j) relative to P(i) + P(i) in wt.% is in the range $2 < A(j) < 85$.

28. (new) The polymer mixture according to claim 13, wherein the fraction A(j) of P(j) relative to P(i) + P(i) in wt.% is in the range $3 < A(j) < 80$.

29. (new) The polymer mixture according to claim 13, wherein the fraction A(j) of P(j) relative to P(i) + P(i) in wt.% is in the range $5 < A(j) < 75$.

30. (new) The polymer mixture according to claim 13, wherein P(i) has a degree of branching $<3 \times 10^{-2}$, and P(j) has a degree of branching $<5 \times 10^{-2}$.

31. (new) The polymer mixture according to claim 13, wherein P(i) has a degree of branching $<1 \times 10^{-2}$, and P(j) has a degree of branching $<1 \times 10^{-3}$.

32. (new) The polymer mixture according to claim 13, wherein P(i) has a degree of branching $<5 \times 10^{-3}$, and P(j) has a degree of branching $<1 \times 10^{-3}$.

33. (new) The polymer mixture according to claim 13, wherein P(i) has a degree of branching $<1 \times 10^{-3}$, and P(j) has a

degree of branching <1 x 10^{-4}.

34. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <30.

35. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <20.

36. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <10.

37. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <5.

38. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >20.

39. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >30.

40. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >40.

41. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >50.

42. The polymer mixture according to claim 13, wherein P(i) or the sequences A of P(i) comprises a polyolefin selected from the group consisting of a polypropylene, polyethylene, VLDPE, LDPE, LLDPE, HDPE, HMWPE, UHMWPE and mixtures thereof.

43. (new) The polymer mixture according to claim 13, wherein P(i) is a polyolefin and P(j) selected from the group consisting of n-alkanes C_nH_{2n+2}; isoalkanes C_n; cyclic alkanes C_nH_{2n}; polyethylene wax; paraffins and paraffin wax of mineral origin such as macrocrystalline, intermediate or microcrystalline paraffins, brittle, ductile, elastic or plastic microcrystalline paraffins; paraffins and paraffin wax of synthetic origin; hyper-branched alpha olefins; polypropylene wax and mixtures thereof.

44. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.9, and a melting or dropping point in °C of >80.

45. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.925, and a melting or dropping point in °C of >100.

46. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.950, and a melting or dropping point in °C of >110.

47. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.970, and a melting or dropping point in °C of >120.

48. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.980, and a melting or dropping point in °C of >125.

49. (new) The polymer mixture according to claim 13, wherein the polymer mixture in the form of a thermoplastic melt is prepared by means of a dispersively and distributively acting mixing system, especially by means of a double-screw extruder or a single-screw extruder with mixing section or a Buss-Ko kneader and optionally after preparation is present

in the form of granules, pellets, powder, macro- or micro-fibres, as film, casting, continuous casting, extrudate, thermo-shaped part and the like.